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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/606,137 | 06/28/2000 | Michael E. Moseley | 500.003US1 | 5608 |

7590

11/16/2004

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| EXAMINER |
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JUNG, WILLIAM C

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| ART UNIT | PAPER NUMBER |
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3737

DATE MAILED: 11/16/2004

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,137

Applicant(s)

MOSELEY ET AL.

Examiner

William Jung

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 24-43 and 47-53 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 17-23 is/are allowed.
6) ☒ Claim(s) 1-4, 13-16, 24-28, 30, 32-43, and 47-53 is/are rejected.
7) ☒ Claim(s) 5-12, 29 and 31 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-43 and 47-53 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 31 is objected to because of the following informalities: Claim 31 is a dependent claim with dependency to itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-4, 13-16, 24-28, 30, 32-43, and 47-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Dinsmore (US 6,140,116).

Dinsmore anticipates all claimed features in claims 1-4, 13-16, 24-28, 30, 32-43, and 47-53.

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Claims 1-4, 27, 28, 30, 32- 34, 41, and 49: Dinsmore discloses a method for indicating viability of transplanted progenitor or stem cell grown in culture with a medical device that has at least one sensing function comprising a non-destructively observing a region of a patient where the progenitor or stem cell grown in culture cells have been transplanted, sensing a property of the region of the patient that is indicative of cell viability or inviability of transplanted progenitor or stem cells and using data from the sensing the property within the region to indicate cell viability from a transplanted progenitor or stem cells. Dinsmore further discloses that the sensing method comprises magnetic resonance imaging, which is non-destructive navigation and observation with respect to positioning of the progenitor or stem cell growth (col. 1, line 57 – col. 2, line 23; col. 50, line 53 – col. 52, line 45) .

Claims 13-16: Dinsmore's disclosure to use MRI to observe progenitor or stem cell growth inherently includes MRI RF coil since MRI cannot function without it. Therefore, it is inherent that MRI RF coil and frequency control to obtain wanted frequency to excite progenitor or stem cell and surrounding tissue.

Claims 24-26 and 50-53: Dinsmore further discloses a method of detecting at least one of choline, NAA, GABA, phosphocholine, and creatine, i.e. neurotransmitter (col. 3, line 44 – col. 4, line 9; col. 16, lines 40-56).

Claims 35, 36, 42, 43, and 48: Dinsmore discloses a method where the progenitor or stem cell is transfected cells (col. 29, line 62 – col. 30, line 29).

Claims 37-40 and 47: Dinsmore discloses a method where the imaging from MRI is done in real time where it also includes time intervals (col. 51, line 45 – col. 52, line 45).

Allowable Subject Matter

5. Claims 17-23 are allowed.
6. Claims 5-12 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung, Ph.D. whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 703-308-3552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJ

November 11, 2004


ALI IMAM
PRIMARY EXAMINER